vmware IMPLEMENTATION METHODOLOGY

Installation and Configuration Guide

For

VMware vRealize Automation OpenStack Havana Plug-In 1.0.0

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The most current vRealize Automation documentation is at https://www.vmware.com/support/pubs/vcac-pubs.html.

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1. vRealize Automation 6.2 OpenStack Havana Endpoint Plug-In

By default, vRealize Automation uses OpenStack Grizzly to create an endpoint. This extension package enables vRealize Automation 6.2 to use OpenStack Havana to create an OpenStack cloud computing software platform. This extension package uses OpenStack REST API v1 and v2 to support OpenStack Havana .

1.1 OpenStack Extension Package Capabilities

This section describes the OpenStack capabilities that the vRealize Automation 6.2 OpenStack Havana Endpoint Plug-In supports.

1.1.1 Nova OpenStack Compute Service

The plug-In supports these Nova OpenStack Compute Service capabilities :

- List all instances or servers in an OpenStack project or tenant
- Create a new instance or server with all required and optional resources, such as networks, security groups or firewalls, images, flavor of hardware configuration , and post-creation scripts or files
- Delete an existing instance
- List hardware flavors
- Resize, reboot, or rebuild an instance
- Start, stop, pause, unpause, suspend, or resume an instance
- Create an image from a running instance or from a snapshot of an instance
- List, create, and edit security groups or firewalls
- Create, import, delete, or list key pairs of SSH keys
- Associate or dissociate a floating IP to or from an instance
- Get an instance console

1.1.2 Neutron/Quantum OpenStack Networking Service

The plug-In supports the ability of the Neutron/Quantum OpenStack Networking Service to list public and private networks.

1.1.3 Glance OpenStack Image Service

The plug-In supports the ability of OpenStack Image Service, also known as Glance, to list all disk images.

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2. OpenStack Havana Extension Package Contents

The OpenStack Havana extension package, OpenstackHavana.zip, contains the following files.

File Name	Description
Eula.txt	VMware End-User License Agreement
install-openstack-havana-endpoint-model-manager-data.cmd	Installation batch file
Newtonsoft.Json.506.dll	Resource library
openstacknet_vmw_131.dll	Resource library
Installation-and-Configuration-Guide.pdf	This document
SimpleRESTServices.1301.dll	Resource library
VMware.Openstack.Interface.Havana.dll	Interface library

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3. Copying and Installing the OpenStack Extension Package

This section provides the procedures you can use to copy and install the OpenStack extension package.

3.1 Copy the OpenStack Extension Package

Use this procedure to copy the OpenStack extension package to the IaaS Model Manager Data machine.

Prequisites

- vRealize Automation 6.2 deployed.
- Log in to the IaaS Model Manager Data machine as an administrator.
- `OpenstackHavana.zip`.

Procedure

1. Copy `OpenstackHavana.zip` to a directory of your choice.
2. Extract the files using a utility such as 7-Zip File Manager.

3.2 Install the OpenStack Extension Package

Use this procedure to install the OpenStack extension package.

Prequisites

- vRealize Automation 6.2 .
- Log in to the IaaS Model Manager Data machine as an administrator.
- `OpenstackHavana.zip` copied and extracted to a directory on the IaaS Model Manager Data machine.

Procedure

1. Use Windows Explorer to navigate to the directory where you copied and extracted `OpenstackHavana.zip`, and unblock the application extension files.
    a. Right-click **`VMware.Openstack.Interface.Havana.dll`**, and select **Properties**.

    The Properties dialog box appears.

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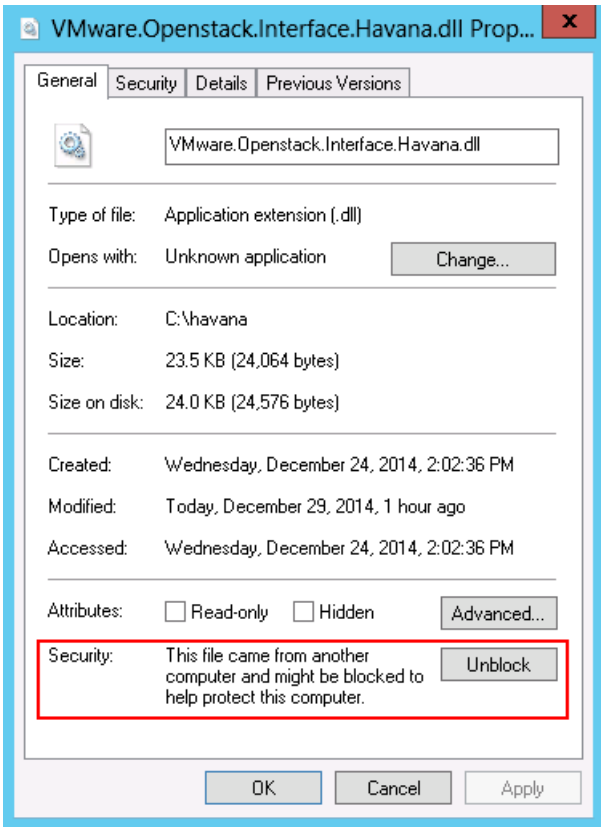
Figure 1. Properties Dialog Box



b. Click **Unblock**.

c. Click **Apply**.

d. Click **OK**.

2. Repeat step 1 for each of the following files.
   - `Newtonsoft.Json.506.dll`
   - `openstacknet_vmw_131.dll`
   - `SimpleRESTServices.1301.dll`
3. Run the `install-openstack-havana-endpoint-model-manager-data.cmd` batch file.
4. Enter **Y** to accept the End-User License Agreement (EULA).
5. Specify the path to the Model Manager Data directory, and press **Enter**.

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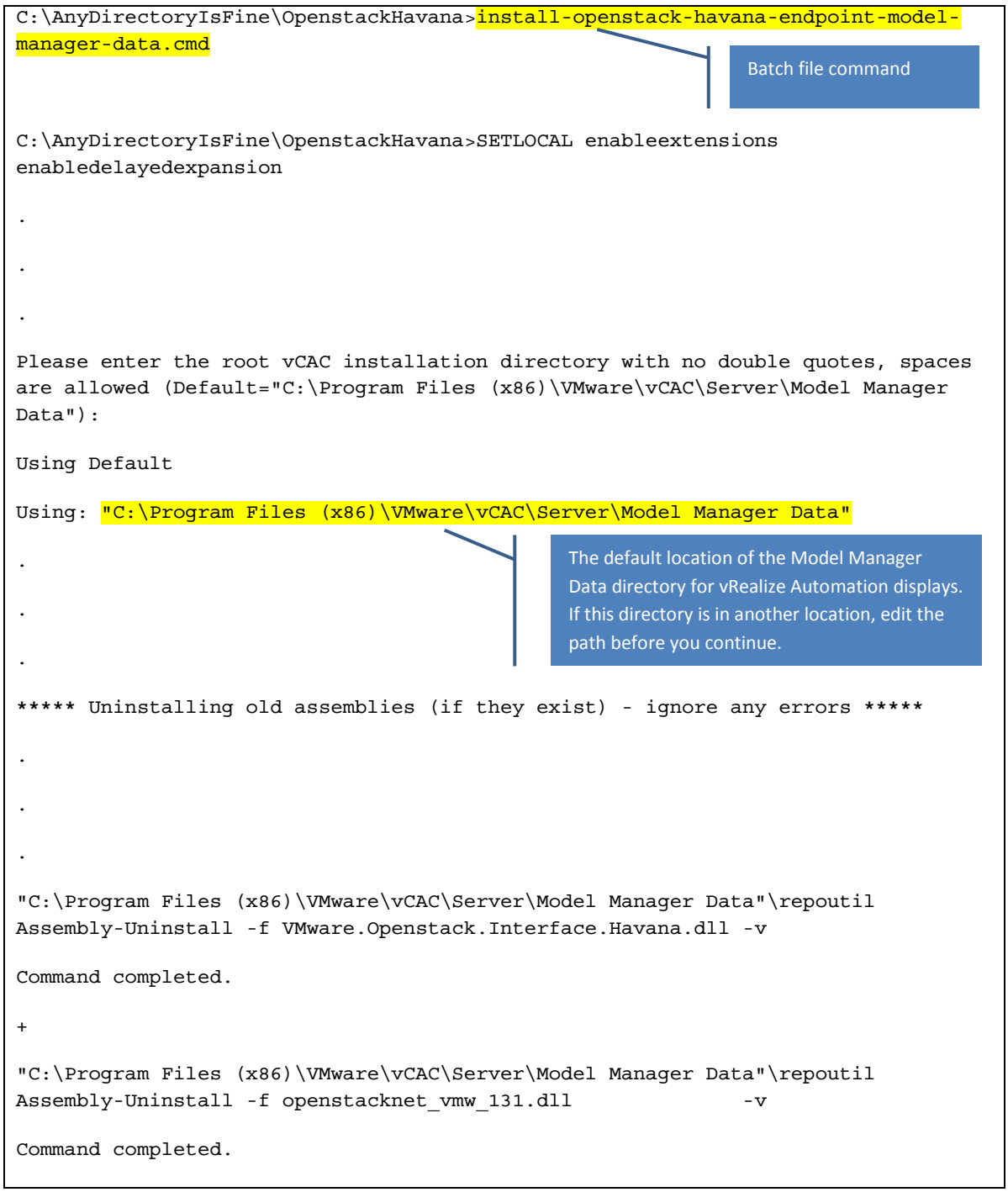
Example Batch File Output displays an example of what you see when you run the `install-openstack-havana-endpoint-model-manager-data.cmd` batch file.

Figure 2. Example Batch File Output


C:\AnyDirectoryIsFine\OpenstackHavana>install-openstack-havana-endpoint-model-manager-data.cmd
Batch file command
C:\AnyDirectoryIsFine\OpenstackHavana>SETLOCAL enableextensions enabledelayedexpansion
.
.
.
Please enter the root vCAC installation directory with no double quotes, spaces are allowed (Default="C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"):
Using Default
Using: "C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"
The default location of the Model Manager Data directory for vRealize Automation displays. If this directory is in another location, edit the path before you continue.
.
.
.
***** Uninstalling old assemblies (if they exist) - ignore any errors *****
.
.
.
"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil Assembly-Uninstall -f VMware.Openstack.Interface.Havana.dll -v
Command completed.
+
"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil Assembly-Uninstall -f openstacknet_vmw_131.dll -v
Command completed.

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```
+

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Uninstall -f SimpleRESTServices.1301.dll           -v

Command completed.

+

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Uninstall -f Newtonsoft.Json.506.dll               -v

Command completed.

.

.

.

***** Installing assemblies *****

.

.

.

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Install -f VMware.Openstack.Interface.Havana.dll   -v

Command completed.

+

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Install -f openstacknet_vmw_131.dll                -v

Command completed.

+

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Install -f SimpleRESTServices.1301.dll             -v

Command completed.

+

"C:\Program Files (x86)\VMware\vCAC\Server\Model Manager Data"\repoutil
Assembly-Install -f Newtonsoft.Json.506.dll                 -v

Command completed.
```

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4. Create a New Havana OpenStack Endpoint

After you install the OpenStack plug-in, you can create an OpenStack endpoint.

Prequisites

Log in to the vRealize Automation 6.2 console as a fabric administrator.

Procedure

1. In the vRealize Automation console, create a new OpenStack endpoint using the values in Table 1. For instructions, see the "*Create a Red Hat OpenStack Endpoint*" documentation in the *VMware vRealize Automation 6.2 Documentation Center*.

Table 1. Havana OpenStack Endpoint Values

Data	Description
Name	Specify a unique name for this endpoint, for example, Openstack Havana Redhat.
(Optional) Description	If necessary, enter reference information in the textbox.
Address	Enter the URL for this endpoint, for example, http://<*server_name*>.local:5000/v2.0. **Note**: Include the /v2.0 suffix in the address.
Credentials	Click the Select Credentials link ( ), click **New Credentials**, and select the the appropriate credential, for example, HavanaOpenstackSqa.
OpenStack project	Red Hat OpenStack tenant name.
Custom Properties	Specify `VMware.Endpoint.Openstack.Release` with the value `Havana`. **Important**: Changing this custom property after data collection breaks the endpoint.

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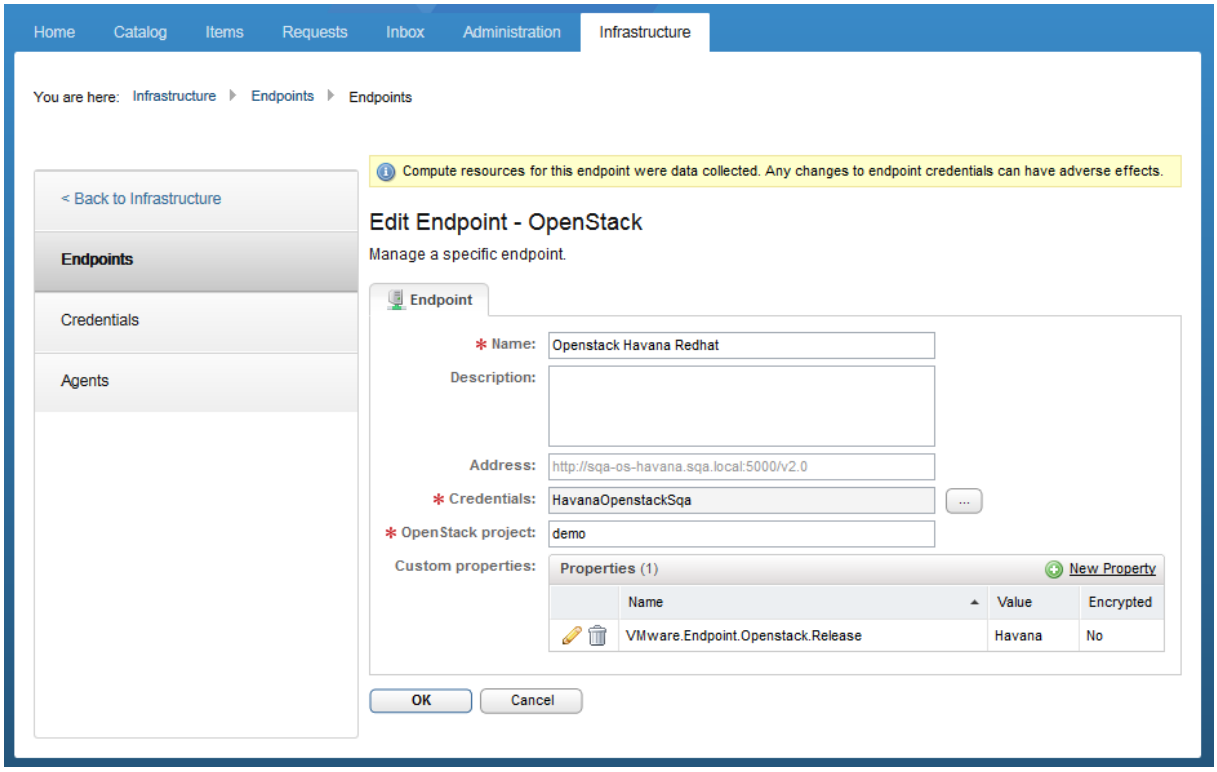
Figure 3 shows a completed page for creating a new Havana endpoint.

Figure 3. Creating a New Havana OpenStack Endpoint



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5. Known Issues

ID	Category	Description
1367698	Endpoint	Inventory data collection for a Havana endpoint throws an exception on networks if the user fails to specify the `VMware.Endpoint.Openstack.Release` custom property. If the custom property is not specified on the endpoint, vRealize Automation processes this as an OpenStack Grizzly endpoint, which can cause an exception.

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